

**CLAIMS**

1. (Amended) An optical fiber drawing method of optical fiber comprising steps of setting an optical fiber preform in a furnace core tube and a preform container connected to an upper portion of the furnace core tube and drawing an optical fiber from one end of said preform by heating and softening,

wherein an upper portion of said preform container is provided with an auxiliary heater and cooling means for cooling said upper portion of said preform container, and said drawing step includes adjusting a cooling quantity by said cooling means.

2. (Amended) An optical fiber drawing method according to Claim 1, wherein the adjustment of the cooling quantity by said cooling means is carried out based on the temperature measured at least at one position inside said preform container.

3. (Amended) An optical fiber drawing method according to Claim 1, wherein said auxiliary heater is disposed movable relative to an outer wall of said preform container and said adjustment of the cooling quantity by said cooling means includes adjustment of a distance between the outer wall of said preform container and said auxiliary heater.

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4. (Amended) An optical fiber drawing method according to Claim 1, wherein said auxiliary heater is placed on an outer wall of said preform container, a heat insulator is disposed movable around the auxiliary heater, and said adjustment of the cooling quantity by said cooling means includes adjustment of a distance between the outer wall of said preform container and said heat insulator.

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10 5. (Amended) An optical fiber drawing method according to Claim 1, wherein said adjustment of the cooling quantity by said cooling means includes adjustment of a quantity of a cooling fluid supplied to around an outer wall of said preform container.

6. An optical fiber drawing method according to Claim 5, wherein said cooling fluid is air or water.

15 7. (Amended) An optical fiber drawing furnace comprising a furnace core tube through which a fiber preform penetrates vertically, a heater disposed around said furnace core tube, and a preform container connected to an upper portion of said furnace core tube so as to be integral with said furnace core tube to form a semi-closed space opening in part at a lower end, for housing said fiber preform inside, said fiber drawing furnace further comprising:

an auxiliary heater disposed at an upper portion of said preform container; and

cooling means for cooling the upper portion of said preform container.

8. (Amended) An optical fiber drawing furnace according to Claim 7, further comprising at least one temperature sensor for measuring an internal temperature in the upper portion of said preform container, wherein said cooling means includes a control unit for adjusting the cooling quantity, based on the temperature measured by said temperature sensor.

9. (Amended) An optical fiber drawing furnace according to Claim 7, wherein said cooling means is air-providing means for supplying cooling air into clearance between said auxiliary heater and an outer wall of said preform container.

10. (Amended) An optical fiber drawing furnace according to Claim 7, wherein said cooling mean comprises heater moving means for moving said auxiliary heater to change a distance relative to said preform container.

11. An optical fiber drawing furnace according to Claim 10, further comprising air-providing means for supplying cooling air into clearance between said

0 . preform container and said auxiliary heater, created by  
15 movement of said auxiliary heater.

12. (Amended) An optical fiber drawing furnace  
according to Claim 7, wherein said auxiliary heater  
comprises a heating element and a heat insulator formed  
around the heating element, said cooling means is  
insulator moving means for moving said heat insulator  
to change a distance relative to said preform  
20 container.

13. An optical fiber drawing furnace according  
to Claim 12, further comprising air-providing means for  
supplying cooling air into clearance between said heat  
insulator and said auxiliary heater, created by  
movement of said heat insulator.

14. (Amended) An optical fiber drawing furnace  
according to Claim 7, wherein said cooling means  
further comprises a cooling fluid circulation path  
formed around said preform container and letting a  
cooling fluid flow inside, and supply means for  
supplying said cooling fluid into said circulation  
25 path.

15. An optical fiber drawing furnace according  
to Claim 14, wherein said cooling fluid is air or  
water.